Art of Data – Chart Descriptions and Context

ArtsKC is teaming up with the City of Kansas City, Missouri's Office of Performance Management, City Communications Office, Office of Culture and Creative Services and Office of Mayor Sly James to create an exhibition that will generate new dialogue about the arts and the city

To celebrate the city's creativity, the City of Kansas City, Missouri seeks conceptual proposals from professional artists or collaborative artist teams to design and create artwork that responds, reflects or reinterprets the city's performance data for an exhibition entitled The Art of Data. The temporary exhibition is intended to engage artists in telling the story of the city and its neighborhoods, to cultivate curiosity and spark imagination, and to engage community in meaningful dialogue about the place we call home. The Art of Data will be on exhibit at ArtsKC beginning on June 5, 2015, and then throughout the month of June.

Artists can respond to one or more pieces of performance data, which are available in a separate document entitled "The Art of Data Charts." The budget for each commissioned artwork shall be $500, with up to 10 conceptual proposals selected for the exhibition. Artists interested in submitting a proposal can find more information here: www.kcmo.gov/artofdata

The information below is provided to help explain the data that is shown and any conclusions that can be drawn, as well as the context in which this data and conclusions were discussed. For more information on these charts, contact: Kate Bender (kate.bender@kcmo.org or 816-513-6567) or Julie Steenson (julie.steenson@kcmo.org or 816-513-6568).

Life Expectancy by Zip Code, Kansas City, MO 2008-2012

This data was discussed at the Healthy Communities KCStat Meeting on July 28, 2014 (meeting presentation, meeting video). The map is based on an analysis done by the Health Department, and it shows that life expectancy in KCMO varies by geography. A color-coded table is also provided to show additional demographic information for the different color-coded regions.

This data tells us that are that there are serious health inequities in the city, with zip codes in the central/eastern region of the city having a lower life expectancy and zip codes in the northland and western edge of the city having a higher life expectancy. Lower life expectancy zip codes also had a higher poverty rate, a lower median family income, and a higher nonwhite population.

Addressing these inequities is an objective on page 15 in the City's 5-Year Citywide Business Plan.

Operating Expenditure by Citywide Goal

This data was discussed at the Finance and Governance KCStat Meeting on December 2, 2014 (meeting presentation, meeting video). The line chart shows the growth in the City's operating expenditures (not including capital expenditures or debt) from 2005 to 2014, broken down by "goal area", which is the category of service being funded. The average growth rate per year for each goal area is shown in the legend.

This data tells us that expenditures on public safety far exceed expenditures for any other category, and they have also been growing faster than the other categories, several of which have remained relatively flat over the 10-year timeframe. Addressing the unequal growth rates is an objective on page 13 in the City's 5-Year Citywide Business Plan.

Citizen Satisfaction with "Overall Value that you Receive for your City Tax Dollars and Fees"

This data was discussed at the Finance and Governance KCStat Meeting on December 2, 2014 (meeting presentation, meeting video). The stacked column chart shows the percent of citizens on the citizen survey who were satisfied/very satisfied, neutral, and dissatisfied/very dissatisfied with the "overall value that you receive for your city tax dollars and fees" from 2005 to the beginning of Fiscal Year 2015 (September 2014). The citizen survey is a random sample survey of approximately 9,000 households in KCMO that occurs each year; it has a response rate of almost 50% and a margin of error of about 1.5%, and the survey sample is balanced to match the city's age, gender, racial, and geographic demographics.

This data tells us that citizen satisfaction with value for tax dollars is relatively low, at 37% in the most recent full year. However, the percent satisfied has increased from 25% in 2005, and is now equivalent to the national average (which suggests that relatively low satisfaction with value for tax dollar is a nationwide phenomenon).

Kansas City Homicides: 1926 to Projected 2014

This data was discussed at the Public Safety KCStat Meeting on November 3, 2014 (meeting presentation, meeting video). The column chart shows the number of homicides recorded each year from 1926 to 2013, with a projected number for 2014. The accompanying line is a 3-year moving average, which is used to show a smoother trend line.

This data tells us that homicides have increased significantly since the late 1960's, but that there has also been considerable variation from year to year and decade to decade. In discussion of this data, some fluctuations have been attributed to effects from historical factors, such as the rise of crack cocaine in the 1990's, while other fluctuation is not easily explained. At the time this chart was shown, the number of homicides for 2014 had not been determined; the final number, 77 homicides, is the lowest since 1972.

Citizen Satisfaction with "Overall Feeling of Safety in the City" and "How Safe You Feel In Your Neighborhood"

This data was discussed at the Public Safety KCStat Meeting on November 3, 2014 (meeting presentation, meeting video). These two maps show the average rating by zip code for two questions on the citizen survey: overall feeling of safety in the city and how safe you feel in your neighborhood. The citizen survey is a random sample survey of 9,000 households in KCMO that occurs each year; it has a response rate of almost 50% and a margin of error of about 1.5%, and the survey sample is balanced to match the city's age, gender, racial, and geographic demographics. The survey asks citizens to rate their satisfaction on a 5-point scale: very satisfied (5), satisfied (4), neutral (3), dissatisfied (2), or very dissatisfied (1). These rating are averaged within each zip code and then the zip codes are color-coded based on that average value – blue indicates an average level of satisfied/very satisfied, beige indicates an average level of neutral, and orange/red indicates an average level of dissatisfied/very dissatisfied.

The "how safe you feel in your neighborhood" map tells us that citizens living in zip codes on the City's East Side are less satisfied with how safe in their neighborhood they feel than citizens living elsewhere in the city. Conversely, the "overall feeling of safety in the City" map suggests that being satisfied with how safe you feel in your neighborhood does not necessarily mean that you are satisfied with the overall feeling of safety in the city – most zip codes on this map are on average neutral in feelings of safety citywide.

Economic Impact of Streetcar: Public/Private Sector Investment Near Streetcar

This data was discussed at the Economic Development KCStat Meeting on October 7, 2014 (meeting presentation, meeting video). This map shows the 2-mile starter streetcar line that is currently under construction along with development projects (numbered) along the streetcar corridor. Several narrative boxes shows the total value of investment in the area, the total value of investment that can be tied directly to the streetcar project, and quotes about specific projects.

This data shows that many real estate development projects are occurring in the immediate vicinity of the streetcar line, from Union Station to the River Market, and that the streetcar was a factor in several of them being developed.

Property Violation Cases Created Each Week

This data was discussed at the Neighborhood Livability KCStat Meeting on August 19, 2014 (meeting presentation). This line chart shows the number of property violation cases that were created each week, with different lines representing the different years. Property violation cases are also known as code enforcement cases – they are reports that a building or property is in violation of the city's property or nuisance code due to tall grass, trash/litter/debris, graffiti, peeling paint, unlicensed cars on the property, structural issues, etc. Also shown with this chart is a table with the average number of cases created per week, and a graphic at the bottom that shows the number of Neighborhood Preservation Division (NPD) inspectors on staff (whose job it is to respond to and manage these cases).

This data shows that property violation cases are seasonal in nature, with peak reporting time occurring in late May – this is in part because the grass has started to grow in March/April and is reaching violation levels by this point in time. The year 2012 was an outlier in this regard, due to drought conditions that reduced the growth of grass/brush. The table shows that except for 2012, the number of cases reported has been strikingly similar from year to year. However, the graphic at the bottom shows that the number of staff dedicated to this task has been reduced over the same timeframe.

311 Matrix: Service Request Timeliness and Customer Satisfaction by Department Work Group (FY2014)

This data was discussed at the Customer Service KCStat Meeting on January 6, 2015 (meeting presentation, meeting video). This scatterplot chart shows how different department work groups performed compared to one another in completing their 311 service requests during fiscal year 2014 (May 2013 through April 2014). Timeliness is on the x-axis at the bottom – for each group, this looks at the number of requests that were completed within the established timeframe (which differs depending on the complexity of the task – for instance, the set timeframe for a pothole is less than the timeframe for a water main break). Customer satisfaction is on the y-axis on the left-hand side – this shows for each group the percent of customers that were satisfied with the quality of service on their request from 311 customer survey that is sent out when requests are completed. The two dotted lines show the citywide averages for timeliness and satisfaction. This means that workgroups in the top right quadrant are performing above average on timeliness and satisfaction, while those in the bottom right are performing below average on timeliness and satisfaction.

This data shows that there is still a lot of variation between workgroups in terms of service level timeliness and satisfaction, but they are starting to cluster toward the intersection of the average lines. Many of the work groups with the highest volume of requests – for example Public Works Solid Waste (PW SW), Water Services Wastewater (WSD WW), and Animal Health and Public Safety (NHS AHPS) are located in the top right quadrant. In the City's performance management meetings, primary emphasis is placed on examining the work processes and work products from the groups in the lower left quadrant.

Citizen Survey: "What are Your Top 2 Preferred Methods of Receiving Information from the City?"

This data was discussed at the Customer Service KCStat Meeting on January 6, 2015 (meeting presentation, meeting video). This bar chart shows the percent of citizens on the citizen survey who selected each of these methods of communication as one of their top two preferred methods, from fiscal year 2013 through the beginning of fiscal year 2015 (September 2014). The citizen survey is a random sample survey of approximately 9,000 households in KCMO that occurs each year; it has a response rate of almost 50% and a margin of error of about 1.5%, and the survey sample is balanced to match the city's age, gender, racial, and geographic demographics.

This data tells us that there is not one form of communication that is preferred by all citizens. The top two methods are the website and the City's magazine (KCMOre) mailed but there is a significant proportion that also prefer Channel 2 or the City's magazine emailed. The proportions preferring text or social media are smaller but appear to be growing. This data is used by the City's Communications Office to target their communication materials.

Citizen Satisfaction with Streets vs. National Average

This data was discussed at the Public Infrastructure KCStat meeting on September 2, 2014 (meeting presentation, meeting video). This bar chart shows the percent of KCMO citizens satisfied with various street-related services on the citizen survey, compared to the national average of citizen satisfaction for these services. The citizen survey is a random sample survey of approximately 9,000 households in KCMO that occurs each year; it has a response rate of almost 50% and a margin of error of about 1.5%, and the survey sample is balanced to match the city's age, gender, racial, and geographic demographics. The national average is from a survey done by the City's citizen survey contractor, ETC Institute, of citizens in cities with 250,000+ population; the results are shared with KCMO for comparison purposes. Questions where the City's satisfaction level exceeds the national average for fiscal year 2014 are starred.

This data tells us that national averages for citizen satisfaction with street services vary considerably, and in several cases are close to 50%. The City is exceeding national averages for satisfaction with snow recovery on both residential and major streets. The City is close to the national average for maintenance of streets in your neighborhood and adequacy of street lighting, and is lagging the national average for condition of sidewalks, maintenance of city streets, and street signs and traffic signals.